**OAKLAND UNIFIED
SCHOOL DISTRICT**

Community Schools, Thriving Students

**OAKLAND UNIFIED SCHOOL DISTRICT
Office of the Board of Education**

To: Board of Education

From: Tony Smith, Superintendent   *Wed for T.S.*

Subject: **District Submitting Grant Proposal & Receiving Agreement & Award**

ACTION REQUESTED:
Approval and support by the Board of Education of District submitting grant proposal & receiving grant award for OUSD schools for fiscal years 2012-13 to accept same in whole or in part, pursuant to the terms and conditions thereof and to submit amendments thereto, for the grant year, if any.

BACKGROUND:
Grant proposal for OUSD schools for the FY12-13 fiscal year was submitted for funding as indicated in the chart below. The Grant Face Sheet and grant application packets are attached.

File I.D #	Backup Document Included	Type	Recipient	Grant's Purpose	Time Period	Funding Source	Grant Amount
	Yes	Grant	Oakland Unified School District Leadership Curriculum and Instruction Math & Science Department	Funds for Principal and teacher professional development to implement standards-aligned elementary science and math	February 17 2012 to February 16, 2013	S. D. Bechtel, Jr. Foundation	$1,725,000.00

DISCUSSION:
The district created a Grant Face sheet process to:
- Review proposed grant projects at OUSD sites and assess their contribution to sustained student achievement

- Identify OUSD resources required for program success

OUSD received a Grant Face Sheet and a completed grant application for the program listed in the chart by the school.

FISCAL IMPACT:
The total amount of grants will be provided to OUSD schools from the funders.

- Grants valued at:$1,725,000

RECOMMENDATION:
Approval and support by the Board of Education of District submitting grant proposal & receiving grant award for OUSD schools for fiscal years 2012-13 to accept same in whole or in part, pursuant to the terms and conditions thereof and to submit amendments thereto, for the grant year, if any.

ATTACHMENTS: Grant Face Sheet, Award Letter, Grant Agreement, Proposal, Budget
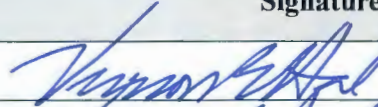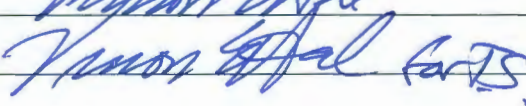
Title of Grant: Professional Development for Middle School Math & Elementary Science	**Funding Cycle Dates:** February 17, 2012 to February 16, 2013
Grant's Fiscal Agent: Oakland Unified School District	**Grant Amount for Full Funding Cycle:** $1,725,000
Funding Agency: S. D. Bechtel, Jr. Foundation	**Grant Focus:** PD for Middle School Math and Elementary Science
List all School(s) or Department(s) to be Served: All middle and elementary schools	

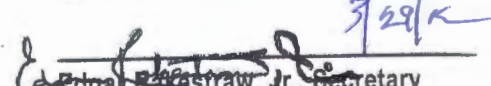| Information Needed	School or Department Response
How will this grant contribute to sustained student achievement or academic standards?	As a result of this grant, Oakland's middle school math teachers will be better prepared to teach materials aligned to the new Common Core State Standards for mathematics; elementary school teachers will be better prepared to teach science aligned to Next Generation Science Standards (NGSS)
How will this grant be evaluated for impact upon student achievement?	Standardized test results for middle school students in math; for elementary students in science.
Does the grant require any resources from the school(s) or district? If so, describe.	No.
Are services being supported by an OUSD funded grant or by a contractor paid through an OUSD contract or MOU? (If yes, include the district's indirect rate of 4.25% for all OUSD site services in the grant's budget for administrative support, evaluation data, or indirect services.)	Yes. The district indirect will be covered by the grant at 4.25% of the total grant amount.
Will the proposed program take students out of the classroom for any portion of the school day?	No.
Who is the contact managing and assuring grant compliance? (Include contact's name, address, phone number, email address.)	Maria Santos, Deputy Superintendent 1025 Second Avenue, 301 Oakland, CA, 879-8200; maria.santosdept.su@ousd.k12.ca.us

Applicant Obtained Approval Signatures:

Entity	Name/s	Signature/s	Date
Principal			
Department Head (e.g. for school day programs or for extended day and student support activities)			

Grant Office Obtained Approval Signatures:

Entity	Name/s	Signature/s	Date
Fiscal Officer	Vernon Hal		
Superintendent	Tony Smith		

File ID Number: _12-0767_
Introduction Date: _3-28-12_
Enactment Number: _12-0966_
Enactment Date: _3-29-12_
By: _____

Certified:

Edgar Rakestraw, Jr., Secretary
Board of Education

1

LAUREN B. DACHS
PRESIDENT

February 17, 2012

Tony Smith, Ph.D., Superintendent
Maria Santos, Deputy Superintendent
Oakland Unified School District
1025 2nd Ave.
Oakland, CA 94606

Dear Dr. Smith and Ms. Santos:

I am pleased to inform you that the Board of Directors of the S. D. Bechtel, Jr. Foundation and the Stephen Bechtel Fund have approved a grant to Oakland Unified School District in the amount of $1,725,000. This grant is to be used to support principal and teacher professional development to implement elementary science program aligned with NGSS and middle school math program aligned with Common Core State Standards-Math, as defined in your proposal dated January 13, 2012.

This grant is renewable for one additional year provided that satisfactory progress reports are received and intended outcomes are realized during the grant period.

Enclosed please find a copy of our Grant Report Requirements, along with two copies of a Grant Agreement. Please sign and return by mail one copy of the Agreement at your earliest convenience. **Please note that a Grant Report on the use of these funds will be due by February 16, 2013.**

Upon receipt of this signed, original Grant Agreement, we will send a check to you in the amount of $1,725,000 made payable to Oakland Unified School District.

Please note that payments may be made by either the S. D. Bechtel, Jr. Foundation or the Stephen Bechtel Fund.

Sincerely,

Lauren B. Dachs

Lauren B. Dachs

Enclosures

S. D. Bechtel, Jr. Foundation
Stephen Bechtel Fund

Grant Agreement

Organization: **Oakland Unified School District** (the *"Grantee"*) 1025 2nd Avenue, Room 301 Oakland, CA 94606	Project/Program Director: Tony Smith, Ph.D., Superintendent (510) 879-8200 tony.smith@ousd.k12.ca.us
Grant Amount: $1,725,000 (One Million, Seven Hundred and Twenty-Five Thousand and 0/100ths)(the *"Grant Amount"*)	Grant Duration: February 17, 2012 -- February 16, 2013
Payment Amount: $1,725,000	**Grant Report(s) Due By:** **February 15, 2013**

Description:
Funds to support principal and teacher professional development to implement elementary science program aligned with NGSS and middle school math program aligned with Common Core State Standards-Math, as set forth in the proposal submitted to the S. D. Bechtel, Jr. Foundation and/or the Stephen Bechtel Fund dated January 13, 2012 (the *"Proposal"*) and as described in any relevant correspondence regarding the Proposal, all of which are incorporated by reference (collectively, the *"Project"*). This grant is renewable for one additional year provided that satisfactory progress reports are received and intended outcomes are realized during the grant period.

The following terms are agreed upon as conditions for this Grant Agreement:

1. Payment. Payments of this Grant Amount shall be made to the Grantee by either the S. D. Bechtel, Jr. Foundation or the Stephen Bechtel Fund (each alone or together, the *"Grantor"*). All terms of this Grant Agreement are applicable regardless of which organization provides payment. Grantee affirms that each payment received from Grantor during the Grant Duration shall satisfy the Grant Amount of $1,725,000 (One Million, Seven Hundred and Twenty-Five Thousand and 0/100ths) and shall be used exclusively to implement the purposes of the Project.

2. Purposes. Grantee shall use the entire Grant Amount, including any interest earned thereon, to implement the charitable purposes of the Project. Any portion of the Grant Amount, including any interest earned thereon, not spent at the completion of the Grant Duration shall be returned immediately to Grantor.

3. Impermissible Purposes. Grantee agrees that no portion of the Grant Amount shall be used, as defined by the Internal Revenue Code and applicable Treasury Regulations, (a) to lobby or to otherwise influence legislation, (b) to influence the outcome of any specific public election or participate or intervene in any political campaign on behalf of or in opposition to any candidate for public office, (c) to carry on, directly or indirectly, any voter registration drive, (d) to induce or encourage violations of law or public policy, (e) to cause any private inurement or improper private benefit to occur, (f) to take any action that would or reasonably could jeopardize its tax-exempt status, or (g) for any non-charitable purpose.

4. Tax-Exempt Status. Grantee warrants that, as of the date of this Grant Agreement, Grantee's tax-exempt status is valid. Grantee shall use best efforts to maintain its tax-exempt status. Grantee shall immediately notify Grantor of any events that may lead to or actually lead to a change in Grantee's tax-exempt status. Grantee acknowledges and agrees that such an event may lead to the termination of this Grant Agreement or the addition of terms, conditions or other limitations on the Grant Amount.

5. Reporting. The Grantee shall submit a Grant Report(s) to the Grantor by the date(s) specified above, or by alternative date(s) mutually agreed upon by Grantor and Grantee, in accordance with the attached Report Requirements, all of which are incorporated by reference. Grantee shall provide information about any portion of the Grant Amount that may be paid to organizations or consultants engaged in fundraising or public relations. Grantee shall notify Grantor immediately of any anticipated or actual changes in key personnel of the Grantee or the Project. Grantee acknowledges and agrees that changes in key personnel may lead to the termination of this Grant Agreement or the addition of terms, conditions or other limitations on the Grant Amount.

6. Accounts and Record Keeping. Grantee shall maintain adequate records relating to the Project in addition to all records required by the Internal Revenue Code and Treasury Regulations. Grantee shall make all records relating to the Project available for inspection by Grantor upon Grantor's request throughout the Grant Duration and for at least four (4) years after the end of the Grant Duration.

7. No Assignment or Delegation. Grantee shall not assign or otherwise transfer its rights or delegate any of its obligations under this Grant Agreement without the prior written consent of the Grantor.

8. Publicity. Grantee shall not release any public announcements or statements to the media regarding the Grantor's, any member of the Bechtel family's, or the Bechtel Group's affiliation with or contribution to the Project without the prior written consent of Grantor. Grantee shall not make any commitments for permanent recognition of any of the foregoing without the prior written consent of Grantor.

9. Insurance and Indemnification. Grantee shall maintain insurance with a reputable insurance company(ies) in such amounts and covering such risks as is prudent and is usually carried by organizations engaged in projects similar to Grantee. Grantee shall furnish Grantor with evidence of insurance on this Project upon Grantor's request. Grantee hereby agrees to indemnify, defend and hold

harmless Grantor, its Officers and its employees from and against, and in respect to, any and all losses, expenses, costs, obligations, liabilities and damages, including interest, penalties and reasonable attorney's fees and expenses, that Grantor may incur as a result of any grossly negligent or willful acts and omissions of Grantee or any of its agents or employees ensuing out of Grantee's performance of this Grant Agreement.

10. Future Payments. All future payments are expressly contingent upon the submission of the required Grant Report(s), the satisfactory progression of the Project as determined by Grantor, and the continued compliance with the terms of this Grant Agreement.

11. Termination and Modifications by Grantee. Grantee shall not terminate, modify or redirect the Project in any material way without the prior written consent of Grantor. Should Grantee wish to terminate, modify or redirect the Project in any material way, Grantee shall provide Grantor with a written request that includes the reason for termination, modification or redirection and detailed accounting of the use of Grant Amount spent to date. Grantor reserves the right to deny Grantee's request and terminate this Grant Agreement in its sole and absolute discretion and may demand the return of any uncommitted or unspent Grant Amount with accrued interest.

12. Termination and Modifications by Grantor. Grantor reserves the right to curtail or terminate this Grant Agreement in its sole and absolute discretion if at any time Grantor determines that the purposes of this Project, or the terms and conditions of this Grant Agreement, are not being met or will not be met. Grantor will endeavor to give Grantee reasonable written notice prior to curtailment or termination of this Grant Agreement to discuss Grantor's concerns, but the determination to continue, curtail or terminate the Grant Agreement shall remain in Grantor's sole and absolute discretion. Any unspent or uncommitted amount the Grant Amount, and any accrued interest on such amount, as of the date of Grantor's notice, as well as any amounts not used for the charitable purposes of the Project, shall be repaid to the Grantor within thirty (30) days of Grantor's notice.

13. No Waiver. Any failure to exercise a right and any delay in exercising a right under this Grant Agreement shall not be deemed a waiver of that right or any other rights by Grantor, nor shall any partial exercise of a right under this Grant Agreement preclude any additional or further exercise of any of any other right.

14. Governing Law. This Grant Agreement shall be construed in accordance with and governed by the laws of the State of California.

15. Dispute Resolution. Except as set forth in this section, Grantor and Grantee waive the right to all remedies in court, including any right to a jury trial, with respect to any claim arising out of or related to this Agreement, and any dispute or claim shall be submitted to arbitration on the written request of Grantor/Grantee after service of that request on the other organization. Any dispute submitted to arbitration pursuant to this section shall be finally and conclusively determined by arbitration conducted in San Francisco, California, before a single arbitrator in accordance with the then current rules of Judicial Arbitration and Mediation Services applying the laws of the State of California. The award or decision of the arbitrator which may include an order of specific performance, injunction, or other equitable relief shall be final and binding on all parties and enforceable in any court of competent jurisdiction. There shall be no right of appeal, except as contained in Section 1286.2 of the California Code of Civil Procedure. During the pendency of any arbitration process, each party to any arbitration shall bear its own expenses, including but not limited to such party's attorney's fees, if any. Upon conclusion of the arbitration, the arbitrator shall specify the "prevailing party" in its award and the "prevailing party" shall be entitled to prompt reimbursement of reasonable attorneys' fees and expenses incurred in connection with the arbitration.

16. Severability. In the event that a provision or parts of a provision of this Grant Agreement is deemed superseded, invalid, illegal or otherwise unenforceable pursuant to applicable laws by an authority having jurisdiction, the remaining provisions or parts of provisions shall remain in full force and effect as if the unenforceable provision or part were deleted.

17. Entire Agreement. This Grant Agreement constitutes the entire agreement between Grantor and Grantee. No oral representations or other agreements have been made by Grantor and Grantee except as stated herein. The Grant Agreement shall not be altered in any way except as herein provided, and no term or provision hereof may be waived except in writing signed by a duly authorized Officer of Grantor.

The undersigned certify that they are the duly elected and authorized Officers of Grantor/Grantee and that, was such, are authorized to enter into this Grant Agreement and to obligate the Grantor/Grantee to observe all the terms and conditions placed in this Grant Agreement, and in connection with this Grant Agreement to make, execute, and deliver on behalf of Grantor/Grantee all agreements, representations, receipts, reports and other instruments of every kind.

The terms of this Grant Agreement are accepted and agreed to by:

Lauren B. Dachs

on behalf of the **Oakland Unified School District**

on behalf of the **S. D. Bechtel, Jr. Foundation** or the **Stephen Bechtel Fund**

| | | President | February 17, 2012 |
| Title | Date | Title | Date |

Fiscal Year 2012-13 LCI Mathematics Budget Planning Worksheet

Program Manager: Phil Tucher Programs: 1197 Bechtel-Math
Program Name: Middle School Mathematics Initiative 12/11/11 draft

Program Activity	hrs	participants	FTE Salary & Benefits	Tchr Extra Pay/Stipend1	Substitutes $138/day	Other Books	Materials & Supplies	Meeting Refreshments	Consultant Contracts	Conferences	Other Misc	TOTAL
(proposed)			$ 506,144	$ 206,737	$ 18,520	$ 3,550	$ 62,625	$ 16,763	$ 33,500	$ 5,500	$ 500	$ 853,838
Goal 1: Instructional Leadership												
Middle School Mathematics Coordinator		1.0 FTE	$ 95,000	$ -	$ -	$ 50	$ 50	$ -	$ -	$ 500	$ -	$ 95,600
Summer Institute: Leading fror Equity - 30 hrs	30	20 teachers	$ -	$ 13,794	$ -	$ 600	$ 100	$ 700	$ 10,000	$ -	$ -	$ 25,194
Back-to-School Kick-off: network schools - 15 hrs	15	90 participants	$ -	$ 43,431	$ -	$ 2,700	$ 90	$ 900	$ 5,000	$ -	$ -	$ 52,141
Reasearch, Assessment, and Data (RAD)		0.5 FTE	$ -	$ -	$ -			$ -	$ -		$ -	$ -
subtotal			$ 95,000	$ 57,245	$ -	$ 3,350	$ 240	$ 1,600	$ 15,000	$ 500	$ -	$ 172,935
Goal 2: Communities of Practice												
Mathematics Specialist		2.0 FTE	$ 160,000	$ -	$ -	$ 100	$ 100	$ -	$ -	$ 1,000	$ -	$ 161,200
2nd Wednesday Collaboration (3:30 pm) - 27 hrs	27	50 teachers	$ -	$ 31,037	$ -	$ -	$ 250	$ 6,570	$ 1,000	$ -	$ -	$ 38,857
TeamMath January special evening event		75 participants	$ -	$ -	$ -	$ -	$ 375	$ 825	$ 500	$ -	$ 500	$ 2,200
Teacher Leaders: site based facilitation - 20 hrs	20	15 teachers	$ -	$ 9,036	$ -	$ -	$ 750	$ -	$ -	$ -	$ -	$ 9,786
Annual Public Lessons event	7	50 participants	$ -	$ -	$ 4,140	$ -	$ 100	$ 500	$ 1,000	$ -	$ -	$ 5,740
Administrative Assistant		0.5 FTE	$ 22,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,500
subtotal			$ 182,500	$ 40,073	$ 4,140	$ 100	$ 1,575	$ 7,895	$ 2,500	$ 1,000	$ 500	$ 240,283
Goal 3: Instruction												
Mathematics Specialist		1.0 FTE	$ 80,000	$ -	$ -	$ 50	$ 50			$ 500		$ 80,600
Summer Institute: Proportional Reasoning- 20 hrs	20	50 teachers	$ -	$ 23,013	$ -	$ -	$ 250	$ 1,500				$ 24,763
Summer Institute: Assessment for Learning - 30 hrs	30	10 teachers	$ -	$ 6,897	$ -	$ -	$ 50	$ 500				$ 7,447
Summer Institute: Academic Language - 30 hrs	30	10 teachers	$ -	$ 6,897	$ -	$ -	$ 50	$ 500	$ 10,000			$ 17,447
Summer Institute: New Teacher Institute - 30 hrs	30	15 teachers	$ -	in kind	$ -	in kind		in kind				$ -
Novice Teacher Mentors - 40 hrs	40	12 teachers	$ -	$ 14,458	$ 3,312	$ -		in kind		$ 3,000		$ 20,770
Midyear Institute: Assessment for Learning - 30 hrs	30	10 teachers	$ -	$ 3,449	$ 2,760	$ -		$ 500				$ 6,709
Midyear Institute: Using Navigator - 30 hrs	30	10 teachers	$ -	$ 4,598	$ 1,380	$ -		$ 500				$ 6,478
Midyear Mini Insitutes on "Buy-Back Days"	7	30 teachers	$ -	$ -	$ -	$ -		$ 600				$ 600
subtotal			$ 80,000	$ 59,311	$ 7,452	$ 50	$ 400	$ 4,100	$ 10,000	$ 3,500	$ -	$ 164,813
Goal 4: Core Curriculum												
Mathematics Specialist		1.0 FTE	$ 80,000	$ -	$ -	$ 50	$ 50	$ -	$ -	$ 500	$ -	$ 80,600
Summer Curriculum Production Team - 30 hrs	30	16 teachers	$ -	$ 11,035	$ -	$ -	$ 240	$ 1,760	$ 3,000	$ -	$ -	$ 16,035
Midyear Curriculum Production Team - 30 hrs	30	16 teachers	$ -	$ 11,035	$ 4,416.00	$ -	$ 120	$1,408.00	$ 3,000	$ -	$ -	$ 19,979
Site-based curriculum implementation materials		18 schools	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Intervention materials: Navigator modules		300 students	$ -	$ -	$ -	$ -	$ 60,000	$ -	$ -	$ -	$ -	$ 60,000
subtotal			$ 80,000	$ 22,070	$ 4,416	$ 50	$ 60,410	$ 3,168	$ 6,000	$ 500	$ -	$ 176,614
Total			$ 437,500	$ 178,699	$ 16,008	$ 3,550	$ 62,625	$ 16,763	$ 33,500	$ 5,500	$ 500	$ 750,645
Plus 15.69% for benefits (calculated)			$ 68,644	$ 28,038	$ 2,512	$ -	$ -	$ -	$ -	$ -	$ -	$ 99,193
TOTAL OPERATING BUDGET			$ 506,143.75	$ 206,736.98	$ 18,519.66	$ 3,550.00	$ 62,625.00	$ 16,763.00	$ 33,500.00	$ 5,500.00	$ 500.00	$ 853,838.38

#VALUE!

1Teacher stipend rates: hourly

Project participation	$ 22.99
Leadership & facilitation	$ 30.12

Meeting refreshments rates:

Snacks	$ 2.00
Breakfast	$ 5.00
Lunch	$ 8.00
Dinner	$ 11.00
day-long	$ 10.00

OPENING FRAMEWORK

In June, 2011, the Oakland Unified School District (OUSD) Board of Directors unanimously approved the district's strategic plan, *Community Schools, Thriving Students*. The strategic plan is a comprehensive and aggressive blueprint for naming district practices that will lead to all students graduating high school ready for college and career. The activities proposed herein are tightly aligned with the strategic plan and are appropriately located on an organized progression that leads from the 'big picture' strategic plan to specific articulation of program activities for mathematics and science in targeted grades.

Figure One: Progression from Strategic Plan to Proposed Activities and Budget

Strategic Plan	Logic Model	Program Goals	Program Activities and Evaluation	Staffing/ Budget

This proposal addresses items under goals two and three of the strategic plan:

Goal 2: Students prepared for success in college and career
- Core curriculum
- Targeted approaches for student success

Goal 3: High quality and effective instruction
- Effective teaching
- Effective instructional leadership

Committing to support the achievement of goals two and three of the strategic plan required that the OUSD STEM team articulate a logic model (see *Figure Two*) to organize our work. OUSD mathematics and science leaders, and their external partners, worked closely with the Deputy Superintendent and Regional Executive Officers (RExOs) to create a logic model for the proposed mathematics and science work that depicts *how* elements of the OUSD strategic plan will lead to improved student learning. The Math/Science Logic Model indicates that: starting with a foundational focus on (1) coherence among instructional and management efforts, (2) quality instruction, and (3) equity in student learning, we will promote strong leadership and capacity to implement evidence-based mathematics and science instructional practices, supported through communities of practice and bolstered by strong curriculum. These efforts are intended to increase the number of effective teachers who remain in OUSD and to increase student learning in mathematics, science, and other subjects while significantly reducing achievement gaps.

Math and science leaders in OUSD defined four program goals for the next two years based on the logic model. In the sections that follow, we propose a set of mathematics and science activities that are organized within program goals.
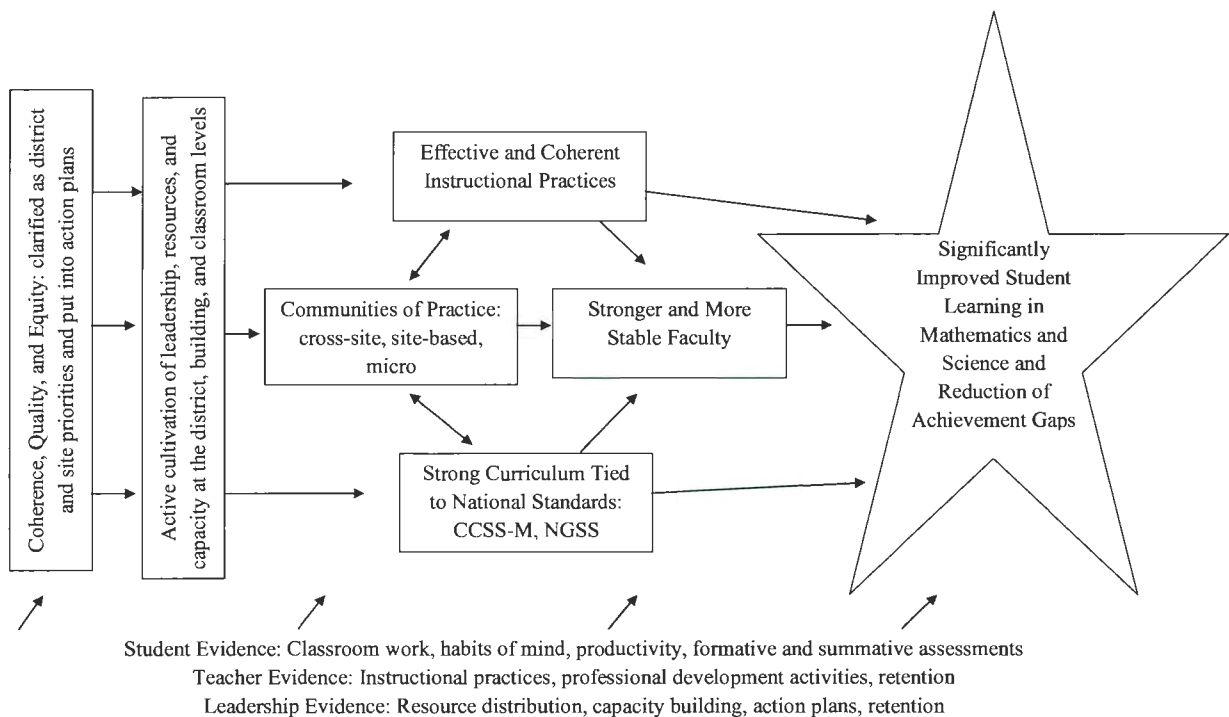
Program Goal 1: Strengthen instructional leadership for mathematics and science

Program Goal 2: Establish and support communities of practice

Program Goal 3: Promote coherent and effective instructional practices

Program Goal 4: Implement strong curriculum tied to Common Core State Standards in mathematics and to the science framework that serves as the foundation for the development of Next Generation Science Standards

Figure Two: Math/Science Logic Model

Student Evidence: Classroom work, habits of mind, productivity, formative and summative assessments
Teacher Evidence: Instructional practices, professional development activities, retention
Leadership Evidence: Resource distribution, capacity building, action plans, retention

PROJECT DESCRIPTION

Oakland Unified School District (OUSD) in Oakland, California, operates 141 schools (109 regular public schools and 32 charters) serving over 46,516 students. Among our students, 35%

are African American, 37% are Latino, 32% are English Learners (25% Spanish is home language) and 71% are eligible for free or reduced price lunch. In line with the strategic plan, our district is committed to the graduation of all students ready for college and career.

We have reached a "tipping point" where student achievement in the majority of our elementary and middle schools, including those that serve high numbers of children from the poorest neighborhoods, is consistently rising. The California Department of Education has identified OUSD as its most improved school district over the last six years. We have closed the worst schools and replaced many with excellent schools. We are now creating better ways to pinpoint our limited resources to support students with the greatest needs while supporting master principals and teachers to share their knowledge with their peers.

Through this proposal we seek funding from the S.D. Bechtel, Jr. Foundation (Bechtel) to continue a program of promising practices that build teacher and principal capacity in service of effective learning in elementary science and middle school mathematics. The elementary science program will serve 56 principals, 970 teachers, and 20,000 students in 56 district elementary schools. The middle school mathematics program will serve more than 7500 6th, 7th, and 8th grade students and 84 teachers at OUSD's 18 district schools with middle grades students.

We have organized our project description within two domains – science and mathematics - followed by a brief proposal for formative evaluation. Within each domain we describe a set of activities purposely designed to achieve the four program goals listed above, with the ultimate intent to improve student learning and reduce achievement gaps.

Science: K-5

Over the past five years, OUSD has developed a system for supporting a district-wide science program. During the past year, the work shifted towards building capacity at each individual school site for improving their science instruction and towards increasing accountability from the district. With the release of the new Framework for K-12 Science Education and the pending publication of the New Generation Science Standards, Oakland is ready to incorporate both documents into all areas of work.

For the next two years OUSD science leaders will expand and deepen the initial program of work that develops principals and teachers so that they have the capacity to ensure that each elementary school in OUSD provides high quality science instruction for equitable student learning. The work will also be differentiated between expectations and resources for all teachers, principals, and schools, versus ones that choose to have a deeper focus on science instruction. The later includes at least twelve science Focus Schools. There will also be a shift from awareness and planning to deeper implementation and developing the tools that will sustain the work beyond the grant funding.

The plans for the next two years build from demonstrated success for improving science leadership and teaching capacity in OUSD. The feedback from principals and teachers leaders this year has been overwhelmingly positive. Most school sites welcome the support and have taken steps to improve science instruction. The plans below draw on the successful, existing collaboration with BaySci for the purpose of developing district capacity for excellent science teaching and learning. SERP will also continue to partner with the science department to support coordination and research components. Elements of sustainability include building school site capacity among principals and teacher leaders, and district capacity within structures, organizational leadership, tools, and programs.

On-going funding for an Elementary Science Coordinator and three Specialists will form an Elementary Team to spearhead the work. Claudio Vargas will continue in the Coordinator role and oversee day to day operations of the elementary science work in partnership with the Science Manager and other District leaders. The Specialists will provide a core of support for schools in each of the three regions, especially Science Focus Schools. An additional 0.5 Administrative Assistance will work to support the team and help with coordination of events and materials related to all activities in this proposal.

Program Goal 1: Strengthen instructional leadership for science

In order for high quality and equitable science learning to take place at every elementary school in OUSD, there must be strong instructional leadership for science at each site. Strong instructional leadership at school sites is distributed in nature (Harris & Spllane, 2008; Spillane & Diamond, 2007). That is, instructional leadership is not the responsibility of a single position (i.e., the principal). Rather, effective instructional leadership designates each member of the instructional team (principal, lead teacher, classroom teacher) a set of appropriate leadership roles at appropriate times. By shifting professional development to a site-based, differentiated model, not only were site specific needs met, but entire faculties were able to share a common science learning experience and planning time. By strategically developing principals, teacher leaders, and teachers, we aim to shift responsibility for improving student achievement from a single leader (i.e., the principal) to a team of leaders who are uniquely positioned to improve teaching in ways that translates into better and equitable science learning.

Principal Leadership
Elementary principals will continue to focus a portion of their professional development time on science implementation. Working with the Network Executive officers and BaySci, the science department will plan 30 hours of professional development a year for all principals over 5-7 sessions. Topics and foci will continue from the work currently taking place. The time will

include large group and regional meetings, small group observations of school sites, and planning.

<u>Teacher Leadership</u>
Teacher leadership development will continue mainly with Lead Science Teachers (LSTs) at each school site and a Summer Science Leadership Institute.

- Tiered Lead Science Teacher Role
  - All school sites
    - Attend LST meetings five times a year
    - Coordinate FOSS curriculum implementation
    - Communicate with teachers and principals
    - Work with the Elementary Team to facilitate Site-Based PD and events
    - CRS Membership
    - $500 stipend
  - Science Focus Schools - in additional to the above responsibilities
    - Help to organize professional learning communities
    - Attend the five day Science Leadership Institute as a team with three teachers,
    - Help coordinate and plan monthly staff meetings during school year to support science learning and implementation.
    - Organize at least two schoolwide science events in 2012-12 and three Schoolwide science events in 2013-14. These could include science fairs, family science nights, and family science exhibitions of student projects.
    - Attend six monthly meetings by region with a team of three teachers from each site to support the work.
    - Additional $1000 stipend, prorated or shared with other teacher leaders based on completing the additional responsibilities

- LST Leadership institute, 3+2 days
  - First three days are for all LSTs, plus 2 additional teachers from Science Focus Schools (56+24 teachers). Topics include:
    - NGSS
    - Assessments
    - Observing student learning – 5x8 cards
    - Content
    - FOSS – new curriculum guides
    - Leadership – meaning, how to address issues at school sites, respond to situations, role play, protocols around challenges
    - Developing leaders as individuals
    - Planning School Events - FSN/Science Fair

- Break Out Groups, by grade level and region
  - o Two additional days for Science Focus Schools
    - Teams of three teachers, plus principal on last day
    - Topics include:
      - Projects, exhibitions, and special events
      - Structures to support collaboration
      - Protocols and PLCs
      - Peer coaching and observations – 5x8 cards
      - 1 day with principal, planning time

Program Goals 3 and 4: Promote coherent and effective instructional practices within a strong curriculum organized within the framework underpinning Next Generation Science Standards

The OUSD science department is committed to developing an instructional program based on progressive standards. Therefore, the department is beginning to organize its work within the three focus areas of the National Research Council's new Framework for K-12 Science Education, which will become the underpinnings for the emerging Next Generation Science Standards (NGSS). The three focus areas include: science and engineering practices, cross-cutting practices; and core ideas. The FOSS curriculum addresses the broad focus areas of the framework and will continue to be a curricular foundation for elementary science in OUSD. The initial work, which has already started this year, will focus on helping teachers and principals understand the eight science and engineering practices and their connection not only to science instruction, but also to critical thinking needed in all subject areas.

In addition, considering that Common Core State Standards for English language arts (CCSS-ELA) emphasize reading, writing, and communicating in the content areas, and that the OUSD Deputy Superintendent has charged the science department to infuse science with academic language and literacy, the OUSD science department will take on specific initiatives to promote academic language and literacy learning in science as part of a coherent and effective instructional program. These two curricular emphases (emerging NGSS and CCSS-ELA) will drive the interpretation of effective instructional practices in elementary science classes. The practices will be distilled into observable behaviors, and tools will be developed to promote principal and teacher attention to effective instructional practices. The initial tool will be a 5x8 card identifying the vital behaviors for students and the evidence-gathering practices for adults that can be implemented in all classrooms. The English Language Arts Department (ELA) is also developing a Literacy Framework which will be completed Spring 2012. This will also bridge ELA with science.

Curriculum and Instructional Resources
- FOSS support and resources

- o FOSS Kit Refurbishment Materials
  - o FOSS Rotation Support (short term staffing)
  - o FOSS Live Material
  - o Summer HS Student Interns (kit refurbishment)
- Use of 5X8 Card for evidence gathering and observing student learning - to be completed January 2012
- Curriculum guides for each FOSS kit – to be develop summer 2012
- Develop and pilot authentic/performance based assessments for each grade level
- Tools for monitoring science instruction at each site
- Other tools for improving instruction (video clips, rubrics, curriculum guides, assessments, etc.) will be developed by the Science Prep Teacher Group, Lead Science Teachers, and Elementary Science Specialists will be shared electronically on the science department website.

Professional development for teachers will be designed to promote cultures, conditions, and competencies that increase effective instructional practices.

Summer Science Professional Development Academy
- Summer Science Professional Development Academy
  - o 5 days, end of June
  - o Open to primarily K-5 teacher teams from science focus schools
  - o Multi-track, teacher choice/differentiation
    - Content & Pedagogy
    - Technology
    - Leadership
    - Science inquiry
    - Assessment
  - o Teacher leaders will co-present

Site-Based Professional Development
Use will continue to use a site-based PD model during the school year. Each school will receive at least one session a year provided by the elementary science team in partnership with the Lead Science Teacher and principal. Science Focus schools will receive at least 4 PD sessions each year. Additional sessions will continue to be added to the series with a focus on academic language and literacy, and the common core standards. Each session will be differentiated based on the current strand of the school, current needs, and existing work.

Professional Development Sessions currently offered include:
- FOSS Nuts & Bolts – lays the foundation for schools that are just getting started with their science program. Built around an engaging FOSS science activity, teachers are

introduced to the basic elements of the program and given guided planning time for their first few lessons.

- Management – provides tools for teachers to manage instructional time, FOSS materials, and student groups during science instruction.
- Introduction to Notebooking –describes the main science notebook components – planning, data collection, sense making, and reflection, and models the use of notebooks to develop writing and reasoning skills during science instruction.
- Advanced Notebooking –goes deeper into the use of science notebooks as a tool for students to make sense of their hands-on experience. Through an engaging FOSS activity, teachers use "science talk" and claims and evidence charts to model science content learning through oral discourse and writing.
- Developing Language through Science Instruction –models strategies to activate prior knowledge, includes language objectives for the lessons, and uses oral discourse for language development and as a precursor to writing for understanding. The session also presents a variety of scaffolds to provide EL students access to the science content in connection with District's Academic Language and Literacy initiative.

These additional sessions are in development:
- Strategies for Including Science – for schools with Science Prep Teachers
- Looking at Student Work – focuses on looking at student science notebooks using a protocol as a tool to uncover student thinking and understanding.
- Science Fair as Science Inquiry – focuses on developing testable questions, defining variables through an investigation, and looking at the new Science Framework for K-12, with particular emphasis on the Scientific and Engineering Practices dimension of the framework.
- Science in the Garden – use school gardens as a resource for science instruction.

Other District Science Workshops

Workshops focused coordinating school site science fair events and family science nights will continue to be presented at the district level.

District Science Events
- K-5 Science Fair
- Dinner with a Scientist

Program Goal 2: Establish and support communities of practice

This year the communities of practice will continue and expand in four areas based on lessons learned throughout year one of implementation. First, the science department will foster site-based support groups that engage in reflection and action to promote science learning opportunities to all students within a school. Second, 12 elementary schools, four in each region,

with strong capacity for science innovation will form a "Science Focus School Community." Focus schools will take the lead on initiating progressive science leadership and instruction. The Focus School Community will identify practices that work within their schools to ensure that all students are participating in high quality elementary science instruction. Once identified in the Focus School Community, these practices will inform the overall professional development for principals, teacher leaders, and teachers so that innovation can spread throughout OUSD. Third, Science Prep Teachers will be supported through a monthly work group. Lastly, the CAL:BLAST Project will continue for two more years to support a community of teachers focused on science and English Language Learners.

Focus Schools
The following twelve Science Focus School sites were selected to receive additional support in 2011-12.

Region	School Name	Principal	2011 API	# Stud	2011 CST
1	Hoover	LaResha Martin	705	194	10%
	Lafayette	Karen Haynes	628	213	6%
	Martin Luther King Jr.	Roma Groves	639	140	20%
	PLACE @ Prescott	Enomwoyi Booker	702	122	28%
2	International Community	Eduardo R Munoz	741	175	19%
	Laurel	John Stangl	829	319	43%
	Think College Now	(Jose) Ruben Olivares	847	194	57%
	La Escuelita (Alternate)	Tammy Rose	834	149	42%
3	Esperanza Elementary	Sondra Aguilera	763	210	62%
	Futures	Colleen DeBratto	682	183	26%
	Korematsu Discovery Academy	Charles Wilson	788	188	44%
	Encompass Academy	Minh-Tram Nguyen	750	149	28%

The selection criteria included:
1. The principal is committed to improving the science program at their school.
2. All teachers teach science weekly and meet the required minimum instructional minutes per week.
3. PLC time is provided regularly for teachers to collaborate and plan science instruction.
4. There exists teacher leadership to take on the role of science at the school.
5. Other possible criteria include existing commitment to science instruction (history of science instruction, FOSS implementation, CAL:BLAST), involvement in the West Oakland STEM Corridor, and REXO Feedback.

For 2012-14, Focus Schools will be expected to:
1. Attend the five day Science Leadership Institute as a team of three teachers, this includes the three days with other teacher leaders and two additional days to focus

on more intensive planning for their site. The principals will also be invited to attend.

2. Plan monthly staff meetings during school year to support science learning and implementation. These could include Site-Based PD, PLC planning time, and attending meetings with other Focus Schools in the region to network and share ideas.

3. Organize at least two schoolwide science events in 2012-12 and three Schoolwide science events in 2013-14. These could include science fairs, family science nights, and family science exhibitions of student projects.

4. Attend six monthly meetings by region with a team of three teachers from each site to support the work.

Science Focus Schools will receive the following supports and resources:
- Classroom Coaching by an Elementary Science Specialist
- Leadership support for principal and Lead Science Teacher
- Additional Site-Based Profession Development Sessions
- Stipends for attending Regional Focus School meetings and Summer Institutes.

The Science Focus Schools may change next year based on the interest and capacity. The goal is to focus on schools that are committed to developing the capacity to grow and eventually sustain a school focus on science. These are sites who are thinking deeply about their science practices.

Science Prep Teacher Work Group

The Science Prep Teacher Work Group will also continue to meet monthly to support teachers who are providing science instruction in a prep model. Currently, this includes twelve school sites and the work covers strategies for instruction and maximizing instructional time with students. The focus in the spring will shift towards expanding science learning opportunities to the entire school, not just what is happening in the weekly science prep classroom. We are designing a separate Site-Based PD for these sites that provide a menu of choices for all teachers to include science in their instruction.

Next year, this will include extending science explicitly into the English Language Arts time, seeking opportunities for interdisciplinary projects, student leadership, and planning schoolwide science events. The prep teachers will also help with the planning of the site-based PD focusing on these opportunities.

CAL:BLAST Project

The CAL:BLAST Project is funded by a $1,000,000 Improving Teacher Quality Grant in partnership with Lawrence Hall of Science and UC Berkeley. The three year grant from 2011-2013 will support 40 elementary teachers in ten schools to focus in depth on English Language Learners and science in grades 3-5. Participating teachers will attend a week-long summer

institute with follow up activities during the school year. Some of these school sites also overlap with Science Focus Schools and will provide an additional layer of learning for the school.

Mathematics: 6-8

For the next two years OUSD mathematics leaders will organize their work to achieve the organizational, curricular, and pedagogical shifts that must occur in 6th through 8th grade to ensure that students are on track for high school graduation and success in college and career, and meeting the rigors of the Common Core State Standards for Mathematics (CCSS-M). The work will be based on demonstrated success and lessons learned during year one.

Specifically, program goals seek to continue building sustainable systemic transformation through high-quality instructional leadership, collaborative communities of practice, instructional development, and curricular and assessment upgrades that will align instruction to Common Core Standards.

The mathematics team will continue to work with SERP partners (Phil Daro, Harold Asturias, Kirsten Kainz) to build district and site coherence to achieve a strong curriculum aligned with CCSS-M and expressed via effective instructional practices that boost equitable mathematics learning.

Program Goal 1: Strengthen instructional leadership for mathematics.

As is the case in science, the mathematics team acknowledges that effective instructional leadership is needed to promote equitable learning to the Common Core standards for grades 6 through 8 students. Improved content-specific systems and structures will contribute to the sustainability of planned program improvements. Key district reforms will attend more closely to specific needs and quality of mathematics classrooms instruction. Examples of this are school quality review, improved professional supervision, community school strategic site planning, job-alike as well as cross-site collaborative inquiry, and full integration of teacher quality and leader quality frameworks.

In year one, we have sought to distribute instructional leadership strategically: from central office to site leadership, and to the classroom. We see a growing commitment and capacity in mathematics from Regional Executive Officers, principals, mathematics teacher leaders, and the teaching community, alike.

District mathematics leaders will continue to cultivate mathematics leadership at every level in order to: 1) strengthen the instructional vision for middle school mathematics within each school community; 2) improve classroom visitation practices and observation protocols in ways that

give useful feedback to students, teachers, and site leaders, and align to CCSS-M; 3) develop site teams to implement and revise site plans that increase the rigor and supports for quality mathematics instruction; and 4) develop re-cultured and re-tooled systems for school quality review, and site planning, district-wide. The following programmatic plans demonstrate a district commitment to infuse existing cross-site and site-based leadership efforts with mathematics-specific direction.

- **Regional Executive Officers (REXOs) and central office mathematics leaders**
    1. STEM planning and development retreats - Summer, Fall, and Winter
    2. STEM program review and planning meetings with Deputy Superintendent and district mathematics leadership – monthly
    3. Mathematics Working Group – regular participation by one REXO as possible

- **Principals and site administrators**
    1. Tiered participation in job-alike professional learning and inquiry, with all principals involved in 20 hours of centrally provided professional development in order to understand:
        - Features of a quality mathematics program
        - Student competencies developed in each course, grades 6-8, including "exit" performances in mathematics demonstrating mastery at college- and career-ready levels
        - How to support a math team to develop and begin implementing a site mathematics improvement plan
    2. Regional development of site administrators, with 20 hours of cross-site visits and collaborative inquiry
    3. Site leadership teams' participation in Middle School Mathematics Network (tiered participation model still being developed) to allow for showcase schools to:
        - Demonstrate quality instructional practice
        - Demonstrate quality instructional leadership practice
        - Share across sites the inquiry work of site mathematics leadership teams
        - Spur collaboration and regional spread of promising practice

    4. At least monthly follow-up coaching support to site administrators and site mathematics leadership to build culture, conditions, and competencies for continuous learning and improvement

- **Teacher Leaders at school sites**
    1. Tiered participation with opportunities to participate and lead in the following areas:
        (a) Site-based professional learning community (goal 2)
        (b) Mentoring new teachers (goal 3)
        (c) Leading student intervention inquiry (goal 3)

(d) Producing grade-level core curriculum (goal 4)

(e) Develop course development and assessment review (goal 4)

(f) Special math events such as family mathematics nights, competitions (goal 4)

2. Leading for Equity in Mathematics

(a) Summer institute for teachers (5-days) and Network Schools' leadership teams (3-days)

(b) Focus on a variety of key topics for school change and personal leadership transformation

- Systems and processes for continuous program learning and improvement
- Working with colleagues (within and across sites)
- Classroom leadership (student-student and student-teacher interactions)

- **Middle School Mathematics Coordinator and Specialists**
  1) Continue with the team concept from year one, with distributed leadership responsibilities for each specialist as shown in the chart below. Add a position to the LCI middle school team (Middle School Mathematics Coordinator) to compensate for the additional teacher participants (all 8th grade teachers), and to take over some of the project and personnel management responsibilities from the district mathematics manager.

Coordinator / Specialist	Sample Leadership Responsibilities
Coordinator	Site development (1-4 sites); instructional leadership development; coordination of project activities, team leadership and personnel management
Specialist #1	Region 1 site development (3-5 sites); site administrator development; communications; SERP liaison; West Oakland Middle School STEM
Specialist #2	Region 2 site development (3-5 sites); benchmark assessment development; mathematics intervention; RAD liaison
Specialist #3	Region 3 site development (3-5 sites); instructional quality and teacher development; Team Math Mentoring; Talent Development Office liaison
Specialist #4	Site development (3-5 sites); curriculum production and development

2) The proposed roles of middle school specialists and coordinator are listed here aligned to program goals. They include:
   a) Manage middle school instructional leadership development, including content-specific development of REXOs, site administrators, and a team of specialists (coordinator, goal #1)
   b) Work with teachers, principals, REXOs to ensure mathematics site plans at each site outline a coherent approach to curriculum and instructional practice development, student assessment, academic intervention, and program leadership and improvement; (specialists and coordinator, goal #1)
   c) Work with teachers, teacher leaders, and site administrators to ensure site-based communities of practice develop the instructional capacity of all math teachers, and that site needs are met through the cross-site opportunities for professional learning and instructional planning aligned to CCSS-M (specialists and coordinator, goal #2)
   d) Coordinate middle school instructional practice development, including in-classroom coaching follow-up (specialists, goal #3)
   e) Develop TeamMath mentors and mentoring activities that improve the instruction for students in novice teachers' classrooms (specialists, goal #3)
   f) Lead middle school curriculum and assessment development and the transition to the Common Core (specialists, goal #4)
   g) Lead formative evaluation components of middle grades program to ensure teachers experience the set of specific activities outlined in this proposal as a coherent and impactful whole. (coordinator, formative evaluation plan)

The team of specialists, along with a middle school coordinator, will continue to develop coherence throughout the system. The district mathematics manager and REXO and SERP partners join this team to form the middle school working group for this project. Year 2 and 3 will continue to focus on making learning visible. We are planning for an ever increasing variety of student learning artifacts that will eventually include analyses of students' learning as evidenced by quality shared assignments, student learning exhibitions, video samples, classroom visits, and benchmark performance assessments.

In our first year, we have realized the importance and need for increased access to a broader range of student and teacher information and evidence. We believe a more robust formative evaluation component, with full integration of formative evaluation into the program planning and design work, will improve the depth and quality of project activities. Similarly, there is a need for better articulation internally between district mathematics leaders and Research, Assessement and Data, (RAD), and we seek additional support for this work in the form of a 0.5 position that would focus exclusively on the research, assessment, and data needs in mathematics and science: partnering internally with Human Resources, Talent Development Office, and RAD,

coordinating the formative evaluation, and incorporating the work with external data/research partners funded through SERP (proposed) and any external project evaluation.

Estimated need: $XX for a middle school mathematics coordinator, a summer Leading for Equity institute, the Back-to-School Kickoff sessions for participating network schools, and a 0.5 FTE STEM-specific position to develop capacity to use research, assessment, and student/teacher data.

Program Goal 2: Establish and support communities of practice within and across sites

In year one we made the argument that substantive and substantial improvement in mathematics teaching and learning would result from effective communities of practice (DuFour & DuFour, 2008) focused on student data and bounded by a framework of change defined by CCSS-M. Year one was designed as an awareness year, in which the tools for awareness were the MARS performance tasks embedded in curricular documents and benchmark assessments, as well as the 5x8 card observation protocol that sharpens teacher and leader classroom visits to align to CCSS.

In year two, we will continue the commitment to evidence-gathering as a driving process that improves and guides instruction, even as it allows for the system to substantiate and validate the claims that students are learning to rigorous standards. Below are the claims about student learning that middle school communities of practice will seek to substantiate and validate through the careful analyses of student learning. Each claim is summary statement about the knowledge and skill students will be expected to demonstrate on assignments and assessments related to a particular aspect of the CCSS for mathematics, (Schoenfeld and Burkhardt for SMARTER Balanced Assessment Consortium.)

> Mathematics Claim #1: Concepts and Procedures
> "Students can explain and apply mathematical concepts and interpret and carry out mathematical☐procedures with precision and fluency."
>
> Mathematics Claim #2: Problem Solving
> "Students can solve a range of complex well-posed problems in pure and applied mathematics, making☐productive use of knowledge and problem solving strategies."
>
> Mathematics Claim #3: Communicating Reasoning
> "Students can clearly and precisely construct viable arguments to support their own reasoning and☐to critique the reasoning of others."
>
> Mathematics Claim #4: Modeling and Data Analysis
> "Students can analyze complex, real-world scenarios and can construct and use☐mathematical models to interpret and solve problems."

Thus far into year one we have observed the positive impact of professional learning communities on teachers' enthusiasm for the work. These communities of practice are the result

of collaboration across sites, within sites, and within the "micro-communities" of teacher-to-teacher mentoring and coaching. Cross-site opportunities include the Middle School Mathematics Collaborative, which is the increasingly well-attended set of sessions on the second Wednesday of the month, 2:00 – 5:30, for teachers to learn and plan collaboratively. There are also opportunities now for communities of practice to develop across the district (grades 6-7) focusing on curriculum production, novice teacher mentoring, student intervention inquiry, improved facilitation and coordination of mathematics teams at individual sites, and the use of lesson study to understand the implementation of CCSS-M. We are confident that the work of these teacher networks will go deeper in years two and three as we develop teacher leadership and the impact of these communities, and they expand to include 8th grade teachers.

In addition to teacher communities, we also plan to continue to develop the communities of practice amongst site administrators. Twenty hours of centrally-provided professional development for principals -- and in some cases their assistant principals as well -- will be augmented next year by regional collaboration amongst principals and site leaders. Teams of site administrators will again visit schools and classrooms throughout their region to learn from and with their administrator colleagues, thus calibrating and improving their content-specific instructional leadership practice This idea emerged as part of the principal professional development centered on the 5X8 evidence gathering card that underlies most classroom observation in year one. [In between professional development sessions, principals visit classrooms and gather evidence of student thinking, communication, and work related to CCSS-M using the 5X8 Card as a tool for observation. When they return to a professional development session a portion of the morning is devoted to small groups of principals reviewing evidence gathered during classroom visits. These small-group activities serve as professional learning communities for principals; as structured opportunities to reflect on instructional improvement based on review of student data.]

Estimated need: $XX for two mathematics specialists, stipends for after-school monthly collaboration and for improved facilitation of site-based collaborative teams, an annual district-wide special evening event in January highlighting developments and district progress towards CCSS-M, and an annual set of public lessons in June showcasing promising instructional practice and the collaborative inquiry of teachers involved in district initiatives, and an 0.5 administrative assistant to support all project activities.

Program Goal 3: Promote Coherent and effective instructional practices

The district mathematics team asserts that effective teaching in mathematics will need to be aligned with CCSS-M to include: effective representation and engagement with important mathematical content; explicit teaching of academic language; skillful use of assessment; and targeted approaches and supports to accelerate learning for all students.

As outlined in the proposal for year one, the project is designed so that all teaches receive the same baseline professional development and initial support. For example teacher cohorts began Spring 2011, Summer 2011 and now in January 2012 with either the Assessment for Learning (Intro to CCSS-M) or the Academic Language and Literacy in Mathematics course. Summer 2012 we will again offer this course, but staring next year, teachers will be asked to participate even if it requires time out of the classroom. We remain committed to establishing a foundation for all teachers as we move into full implementation of new curriculum aligned to CCSS-M.

Therefore, the mathematics team will promote coherent and effective instructional practices through:

1. Summer institutes for teachers
    a. Three 1-week institutes focused on instructional practice development: mathematics content, assessment, academic language,
        i. *Proportional Reasoning*: August week
        ii. *Assessment for Learning Cohort 3:* July week
        iii. *Academic Language Cohort 3:* July week
2. A 3-day Back-to-School Institute for leadership teams from participating Network sites (still being developed)
    a. August Institute: Implementing Oakland's Core Curriculum in Mathematics (overview of program changes, do mathematics together, what's in core curriculum guide, instructional strategies and signature pedagogy)
3. Midyear institutes for teachers
    a. Mentoring & Support for Novice Teachers (goal 2, 3)
        ▪ Coach Forum meetings
        ▪ Weekly 1:1 mentoring
        ▪ Participation in Grade-level collaboration
        ▪ TeamMath special events (e.g. math conference at Asililomar)
    b. Instructional Practice Development (goal 3)
        ▪ Monthly coaching cycles (for previous cohorts) building from coaching model employed in year one
        ▪ *Assessment for Learning (Cohort 4, Spring 2013)*
        ▪ *Using Navigator – strategic* use of mathematics intervention with attention to a pedagogy that ensures student misconceptions are explicit *(Fall 2012)*
        ▪ Mini Institutes on "Buy-Back Days" (October 2012, January 2013)
        ▪ June Public Lessons (see above, goal 2)

Estimated need: $XX for one mathematics specialist, and stipends, substitutes, materials, and necessary consulting services to provide all teachers with a rich array of summer and midyear professional development institutes.

Program Goal 4: Implement strong curriculum tied to Common Core State Standards in mathematics

In year one, we recognized from student learning data and teacher reporting that arriving 6th grade students need to improve in mathematics in at least these three key aspects: content retention, application, and more fluid/flexible understanding of important mathematics concepts. Each of the four student learning claims identified under Program Goal 2 raises serious concerns about the rigor and quality of the curriculum and assessments that have driven a decade of reform in elementary mathematics in the district and throughout the state.

In response to the greater demands of the colleage- and career-readiness standards, math teachers and district specialists are working with OUSD leadership to develop a Core Curriculum Guide for mathematics that will provide greater clarity about course content ("entrance" assessments to provide teachers with data about students strengths and gaps, "exit" criteria to define course mastery across the system.) This core curriculum guide is being developed to provide all students opportunities for acceleration and intervention organized to adapt promising materials to the needs of specific student populations within Oakland and to enact the new standards within a performance assessment and Response to Intervention framework, with quality first-tier instructional materials and assessments, and augmented supports to students needing further tier-two instruction.

Solid unit design, good assignments, and exhibitions of student performance will provide windows on student learning unlike what previous benchmark assessments have allowed. This expanded view and more public sharing of useful artifacts from student learning will complement the dashboard of metrics that have been the hallmark of program planning and review. We will continue the teacher inquiry work to understand how to utilize intervention materials such as America's Choice Navigator Series strategically to surface and address student misconceptions through curricular design with that stated purpose.

The core curriculum production work builds from the 2010-2011 Task Force work and features prominently in the *Community Schools, Thriving Students* strategic plan "landmarks" for 2011-2012 (year one) implementation. We are defining a core curriculum as: *a coherent **set of learning experiences** that develops in students particular knowledge, skills, dispositions and capacities; the **course of study** (informed by standards, and dependent on instructional practice) that guides teachers as they design, teach, and assess instruction for students.* We are in the process of outlining a shared vision for the kinds of coherent learning experiences that would instantiate the CCSS-M as well as the vision for teaching and learning beginning to emerge across the district.

The core curriculum guides for each course will include the following components:

1. Guiding Principles for Curriculum

2. Syllabi (with pre-requisites, "exits", and shared assignments)
3. Standards
4. Scope & Sequence (to develop deep conceptual and skills mastery)
5. Instructional tools & strategies
6. Assessment Guide
7. Grade-level Units (overview and samples, with implementation support for diverse student populations, e.g. EL's, GATE, African-American Males, SpEd students)

As a direct result of the course and curriculum development work last summer, the mathematics curriculum and assessments used Fall 2011 in most grade 6 and 7 classrooms were improved to include the use of performance tasks, typically MARS tasks, as part of each of the district benchmark assessments. Building from this success, the curriculum production teams will continue to develop and field test sample instructional units. Specifically, the plan calls for:

1. Expanded summer curriculum production team (2 consecutive weeks; flashdrives, materials, lunch)
2. Partnering with Harold Asturias and Phil Daro (SERP) and Ann Shannon and Associates to facilitate curriculum development for the Math 6, Math 7, Math 8, and Algebra
3. Documenting curricular innovation more closely (video, reciprocal classroom visits, lesson study)
4. Convening Curriculum Production Team monthly (stipends for 30 hours of face time and additional fieldwork) with grade-level production leader and feedback facilitator stipends.

Math 8 versus Algebra. By expanding to include 8th grade teachers, the curriculum development work needs to address the pressing curricular needs of our 8th grade students. California Department of Education has not yet clarified Math8 standards and assessment plans, and state and federal auditing pressures from No Child Left Behind are still very much unclear. Still, what is clear is that within OUSD, we will establish a common set of expectations for all Algebra students regardless of when (or where) students take the course. And we will continue to bridge the gap between what teachers are teaching and what students are equipped to learn with careful site-specific solutions. Common Core Standards for Math 8 include important Algebra content, but the standards also clearly identify Algebra content standards that a majority of OUSD students would likely benefit most from taking in the 9th grade.

District leadership and the mathematics teaching community within OUSD are genuinely committed to moving mathematics instruction in line with CCSS-M, improving current levels of achievement, preparing students with 21st century skills, delivering on systemic equality, and meeting the challenges of new performance targets. We recognize the inextricable links between curriculum and instruction, and the fundamental importance of sound assessment practices to drive curricular development and instructional improvement. With California a "governing" member of the SMARTER Balanced Assessment Consortium (SBAC), and with curriculum and

assessment development work well under way in year one, the district is well poised for a full curricular transformation within 3-4 years.

Estimated need: $XX for one mathematics specialist, stipends for summer and yearlong curriculum production work, site-based curriculum implementation materials (e.g. hands-on manipulatives), and Navigator modules for student intervention

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Sustainability

To be completed after retreat. Notes available for the math plan (Phil Daro).

1. Improve Teaching
2. Chain of Command
3. Showcase Schools
4. Assessment

OUTCOMES AND EVALUATION

Below, we describe the plan for increasing district capacity for continuous improvement via formative evaluation. We see the work of cultivating capacity for continuous improvement as essential for sustaining current investments. Although within this proposal we request funding only for 50% of a new position dedicated fully to OUSD Research, Assessment, and Data Analysis Staff (RAD) for the purpose of math/science evaluation, the companion proposal submitted by SERP will include staff time from SERP employee Karen Tran (50%) and proposed contractual work with Dr. Michelle Reininger of Stanford University. **In addition, we welcome the role of an outside evaluation team to provide critical, independent feedback about program implementation and impacts.**

OUSD Formative Evaluation

In year two, OUSD's Research, Assessment & Data (RAD) team will continue to provide formative evaluation aligned to the program goals defined by the logic model. We will also provide a year-end summative evaluation of progress toward those goals and target outcomes. As in year one, we will continue to build OUSD's internal capacity to gather, interpret, and analyze evidence for each of the program goals. While year one utilized formative evaluation for timely course-corrections and modifications, evidence collected during year two will serve more as leading indicators to help us determine whether we are on track toward our program goals.

Using the year one as a baseline year, we will expect to see measurable evidence of improvement in the four goal areas.

For example, in the use of the 5x8 cards in math, we will expect to see continuing attention to the gathering of student evidence for the purposes of understanding the quality and quantity of mathematics learning by students. As well, greater consistency and frequency of student use of academic language and "second sentences" across classrooms within a given middle school, for example, would be an indication of greater coherence and shifting of curriculum and instructional practices aligned to the CCSS-M.

In science, a result of year one activities will be that every school has a plan to ensure that all students have access to the required minutes and FOSS content. Therefore, year two will focus on evidence of consistency and student scientific thinking/inquiry as aligned with framework underlying NGSS. Principals will learn to use a similar 5x8 card for science, developed during year one, to look and listen for evidence of student learning.

As LCI science and math program staff develop the processes, practices, habits, and infrastructure to collect evidence throughout the year, and as more of the LCI-based science and math specialists/coaches begin to document and disseminate their observation notes and findings from professional development sessions and communities of practice, it will be less and less necessary for RAD/SERP to deploy staff to collect these observational/qualitative data that is crucial for the evaluation of our strategies, program, and implementation.

FINANCIAL INFORMATION

The OUSD science department requests a total of $1,570,655 for two years of programming ($836,134 per year based on estimates for year one). This estimation includes a subtraction of $101,614 of unused Bechtel funds from 2011-12. A full budget, including in-kind contributions from OUSD and other sources can be found in the attachment titled *Science Budget.*

The OUSD mathematics department requests a total of $1,707,676 for two years of programming ($853,838 per year based on estimates for year two.) This estimation does not yet include a subtraction of anticipated unused Bechtel funds from 2011-12. A full budget, not yet including in-kind contributions from OUSD and other sources can be found in the attachment currently titled OUSD *Mathematics_Bechtel Budget.*

Evaluation Budget

Effort from Jean Wing, Juwen Lam, and Juan Du will be provided in-kind. We request $24,000 to hire 50% of a data analyst position (negotiation underway to have OUSD fund the other half as a move toward sustainability). This position will be dedicated to analyzing teacher recruitment and retention data, and to supporting other aspects of the formative evaluation.

.TIMELINES

Timelines for activities and persons responsible are listed in Table 3.

Table 3: Activity Timeline

	Activity	Person(s) Responsible	Summer 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014
Science	5X8 Card for Science Instructional Practices?	Vargas, BaySci	X					
	Principal professional development (#events?)	Cheung,Vargas, BaySci		X	X		X	X
	Lead science teacher (LST) summer institute	Cheung, Vargas, BaySci	X			X		
	Annual PD for LST (five meetings annually)	Vargas, BaySci		X	X		X	X
	Summer science academy for K-5 teachers	Cheung, Vargas, BaySci	X			X		
	Site-based PD (#events?)	Vargas, BaySci		X	X		X	X
	FOSS kit maintenance	Vargas, staff	X	X	X	X	X	X
	Science prep support group	Vargas, staff		X	X		X	X
	Focal schools	Vargas, staff		X	X		X	X
	Dinner w/Scientist	Cheung			X			X
	Science Fair	Cheung			X			X
Mathematics	Summer teacher institutes	TBH, Tucher, staff	x			X		
	Annual teacher professional development	TBH, Tucher, SERP, staff		x	x		x	X
	Communities of practice	TBH, Tucher, staff	x	x	x	x	x	x
	Principal professional development	TBH, Tucher, SERP, staff		x	x		x	X
	Mathematics benchmarks	TBH, Tucher, staff, RAD		x	x		x	x
xEval.	Communities of practice	TBH, Tucher, staff	x	x	x	x	x	x
	Observing professional development	Wing, SERP, staff	x	x	x	x	x	x
	Collecting PD feedback forms	Wing, SERP, staff	x	x	x	x	x	X
	Reviewing of master schedules	Wing, SERP, staff		x			X	
	Observing classrooms	Wing, SERP, staff		x	x		x	X
	Project management and learning infrastructure	Wing, SERP, Santos	x	x	x	x	x	X

Mathematics Program Calendar – Summer 2012 to Spring 2013

Date	Activity
Summer 2012	**Instructional Leadership (goal 1)** ☐ *Leading for Equity:* August week ☐ Back-to-school mathematics institute for participating Network sites **Mentoring & Support for Novice Teachers (goal 2, 3)** ☐ *Induction Week:* August week **Instructional Practice Development (goal 3)** ☐ *Proportional Reasoning*: August week ☐ *Assessment for Learning Cohort 3:* July week ☐ *Academic Language Cohort 3:* July week **Core Curriculum (goal 4)** ☐ Curriculum Production Team: June week
August 2012 – June 2013	**Instructional Leadership and Site Implementation (goal 1)** ☐ 1-day all administrator launch with Phil Daro ☐ Five 4-hour sessions (centrally provided) and five 4-hour site visits (regionally provided) for middle school site administrators ☐ Monthly site support for principals: inquiry-based coaching towards CCSS, and PLC development ☐ Site-based reciprocal observations for teachers **Cross-site Course Collaboration (goal 2)** ☐ 2nd Wednesday Collaborative (2:00-3:30) ☐ 2nd Wednesday Collaborative (3:30-5:30) ☐ Monthly coaching cycles for teachers **Mentoring & Support for Novice Teachers (goal 2, 3)** ☐ Coach Forum meetings ☐ Weekly 1:1 mentoring ☐ Participation in Grade-level collaboration ☐ TeamMath special events (e.g. math conference at Asililomar) **Instructional Practice Development (goal 3)** ☐ Monthly coaching cycles (for previous cohorts) ☐ *Assessment for Learning (Cohort 4, Spring 2013)* ☐ *Using Navigator (Fall 2012)* ☐ Mini Institutes on "Buy-Back Days" (October 2012, January 2013) **Core Curriculum (goal 4)** ☐ Curriculum Production Team meetings (monthly) ☐ Intervention Inquiry Team meetings (launch, then monthly)
June 2013	Public Lessons: Bringing to life the Standards for Mathematical Practice (goals 1-4)

Science

- Elementary Team Staffing
  - 1 Elementary Coordinator (Vargas)
  - 3 Elementary Specialists
  - .5 FTE Administrative Assistant (New request)
- In-kind contribution from Caleb Cheung
- BaySci Partnership
  - Advise and assist with
    - Professional Development
      - Summer Leadership Institute
      - Summer Elementary Science Academy
      - Site-based PD
      - LST work
    - District level vision, direction, and planning
  - Partner to support other districts in the region

Mathematics

- Tucher: in-kind
- Middle School Mathematics Coordinator (new request: to support 30% more teachers and support project management)
- Four math specialists
- .5 FTE Administrative Assistant (New request)
- .5 FTE Research, Assessment, and Data (new request)

Eval

- Jean Wing, Juwen Lam, Juan Du: in-kind
- 50% data analyst 2

References

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the Summative Assessment of the Common Core State Standards for Mathematics. *SMARTER Balanced Assessment Consortium.*

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